

Rec'd PCT/PTO 03 AUG 2005

10/529522

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: 10/529,522

Source: P4/10

Date Processed by STIC: 8/3/05

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PCT

RAW SEQUENCE LISTING

DATE: 08/03/2005

PATENT APPLICATION: US/10/529,522

TIME: 14:34:56

Input Set : A:\Bii00225.app

Output Set: N:\CRF4\08032005\J529522.raw

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3 <110> APPLICANT: BIOGEN, INC.
4   SANDROCK, ALFRED
6 <120> TITLE OF INVENTION: THERAPIES FOR CHRONIC INFLAMMATORY DEMYELINATING
7   POLYNEUROPATHY USING INTERFERON-BETA
9 <130> FILE REFERENCE: A186 US
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/529,522
C--> 12 <141> CURRENT FILING DATE: 2002-03-25
14 <150> PRIOR APPLICATION NUMBER: 60/414,307
15 <151> PRIOR FILING DATE: 2002-09-27
17 <160> NUMBER OF SEQ ID NOS: 21
19 <170> SOFTWARE: PatentIn Ver. 3.2
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 840
23 <212> TYPE: DNA
24 <213> ORGANISM: Homo sapiens
26 <220> FEATURE:
27 <221> NAME/KEY: CDS
28 <222> LOCATION: (76)..(639)
30 <400> SEQUENCE: 1
31 acatttctaac tgcaaccttt cgaagccttt gctctggcac aacaggtagt aggcgacact 60
33 gttcgtgttg tcaac atg acc aac aag tgt ctc ctc caa att gct ctc ctg 111
34   Met Thr Asn Lys Cys Leu Leu Gln Ile Ala Leu Leu
35   1 5 10
37 ttg tgc ttc tcc act aca gct ctt tcc atg agc tac aac ttg ctt gga 159
38 Leu Cys Phe Ser Thr Thr Ala Leu Ser Met Ser Tyr Asn Leu Leu Gly
39   15 20 25
41 ttc cta caa aga agc agc aat ttt cag tgt cag aag ctc ctg tgg caa 207
42 Phe Leu Gln Arg Ser Ser Asn Phe Gln Cys Gln Lys Leu Leu Trp Gln
43   30 35 40
45 ttg aat ggg agg ctt gaa tac tgc ctc aag gac agg atg aac ttt gac 255
46 Leu Asn Gly Arg Leu Glu Tyr Cys Leu Lys Asp Arg Met Asn Phe Asp
47 45 50 55 60
49 atc cct gag gag att aag cag ctg cag cag ttc cag aag gag gac gcc 303
50 Ile Pro Glu Glu Ile Lys Gln Leu Gln Gln Phe Gln Lys Glu Asp Ala
51   65 70 75
53 gca ttg acc atc tat gag atg ctc cag aac atc ttt gct att ttc aga 351
54 Ala Leu Thr Ile Tyr Glu Met Leu Gln Asn Ile Phe Ala Ile Phe Arg
55   80 85 90
57 caa gat tca tct agc act ggc tgg aat gag act att gtt gag aac ctc 399
58 Gln Asp Ser Ser Ser Thr Gly Trp Asn Glu Thr Ile Val Glu Asn Leu
59   95 100 105
61 ctg gct aat gtc tat cat cag ata aac cat ctg aag aca gtc ctg gaa 447
62 Leu Ala Asn Val Tyr His Gln Ile Asn His Leu Lys Thr Val Leu Glu

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63      110      115      120
65 gaa aaa ctg gag aaa gaa gat ttc acc agg gga aaa ctc atg agc agt 495
66 Glu Lys Leu Glu Lys Glu Asp Phe Thr Arg Gly Lys Leu Met Ser Ser
67 125      130      135      140
69 ctg cac ctg aaa aga tat tat ggg agg att ctg cat tac ctg aag gcc 543
70 Leu His Leu Lys Arg Tyr Tyr Gly Arg Ile Leu His Tyr Leu Lys Ala
71      145      150      155
73 aag gag tac agt cac tgt gcc tgg acc ata gtc aga gtg gaa atc cta 591
74 Lys Glu Tyr Ser His Cys Ala Trp Thr Ile Val Arg Val Glu Ile Leu
75      160      165      170
77 agg aac ttt tac ttc att aac aga ctt aca ggt tac ctc cga aac tga 639
78 Arg Asn Phe Tyr Phe Ile Asn Arg Leu Thr Gly Tyr Leu Arg Asn
79      175      180      185
81 agatctccta gcctgtgcct ctgggactgg acaattgctt caagcattct tcaaccagca 699
83 gatgctgttt aagtgactga tggctaattgt actgcatatg aaaggacact agaagatttt 759
85 gaaattttta ttaaattatg agttattttt atttatttaa attttatttt ggaaaataaa 819
87 ttatttttgg tgcaaaagtc a 840
90 <210> SEQ ID NO: 2
91 <211> LENGTH: 187
92 <212> TYPE: PRT
93 <213> ORGANISM: Homo sapiens
95 <400> SEQUENCE: 2
96 Met Thr Asn Lys Cys Leu Leu Gln Ile Ala Leu Leu Leu Cys Phe Ser
97 1 5 10 15
99 Thr Thr Ala Leu Ser Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg
100 20 25 30
102 Ser Ser Asn Phe Gln Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg
103 35 40 45
105 Leu Glu Tyr Cys Leu Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu
106 50 55 60
108 Ile Lys Gln Leu Gln Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile
109 65 70 75 80
111 Tyr Glu Met Leu Gln Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser
112 85 90 95
114 Ser Thr Gly Trp Asn Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val
115 100 105 110
117 Tyr His Gln Ile Asn His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu
118 115 120 125
120 Lys Glu Asp Phe Thr Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys
121 130 135 140
123 Arg Tyr Tyr Gly Arg Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser
124 145 150 155 160
126 His Cys Ala Trp Thr Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr
127 165 170 175
129 Phe Ile Asn Arg Leu Thr Gly Tyr Leu Arg Asn
130 180 185
133 <210> SEQ ID NO: 3
134 <211> LENGTH: 501
135 <212> TYPE: DNA

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139 <221> NAME/KEY: CDS
140 <222> LOCATION: (1)..(501)
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143 atg agc tac aac ttg ctt gga ttc cta caa aga agc agc aat ttt cag 48
144 Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
145 1 5 10 15
147 tgt cag aag ctc ctg tgg caa ttg aat ggg agg ctt gaa tac tgc ctc 96
148 Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
149 20 25 30
151 aag gac agg atg aac ttt gac atc cct gag gag att aag cag ctg cag 144
152 Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
153 35 40 45
155 cag ttc cag aag gag gac gcc gca ttg acc atc tat gag atg ctc cag 192
156 Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
157 50 55 60
159 aac atc ttt gct att ttc aga caa gat tca tct agc act ggc tgg aat 240
160 Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
161 65 70 75 80
163 gag act att gtt gag aac ctc ctg gct aat gtc tat cat cag ata aac 288
164 Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
165 85 90 95
167 cat ctg aag aca gtc ctg gaa gaa aaa ctg gag aaa gaa gat ttc acc 336
168 His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
169 100 105 110
171 agg gga aaa ctc atg agc agt ctg cac ctg aaa aga tat tat ggg agg 384
172 Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
173 115 120 125
175 att ctg cat tac ctg aag gcc aag gag tac agt cac tgt gcc tgg acc 432
176 Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
177 130 135 140
179 ata gtc aga gtg gaa atc cta agg aac ttt tac ttc att aac aga ctt 480
180 Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
181 145 150 155 160
183 aca ggt tac ctc cga aac tga 501
184 Thr Gly Tyr Leu Arg Asn
185 165
188 <210> SEQ ID NO: 4
189 <211> LENGTH: 166
190 <212> TYPE: PRT
191 <213> ORGANISM: Homo sapiens
193 <400> SEQUENCE: 4
194 Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
195 1 5 10 15
197 Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
198 20 25 30
200 Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
201 35 40 45

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203 Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
204      50      55      60
206 Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
207 65      70      75      80
209 Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
210      85      90      95
212 His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
213      100      105      110
215 Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
216      115      120      125
218 Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
219      130      135      140
221 Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu
222 145      150      155      160
224 Thr Gly Tyr Leu Arg Asn
225      165
228 <210> SEQ ID NO: 5
229 <211> LENGTH: 15
230 <212> TYPE: DNA
231 <213> ORGANISM: Artificial Sequence
233 <220> FEATURE:
234 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
235      illustrative oligonucleotide
237 <400> SEQUENCE: 5
238 ggcgggtggtg gcagc 15
241 <210> SEQ ID NO: 6
242 <211> LENGTH: 5
243 <212> TYPE: PRT
244 <213> ORGANISM: Artificial Sequence
246 <220> FEATURE:
247 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
248      linker peptide
250 <400> SEQUENCE: 6
251 Gly Gly Gly Gly Ser
252 1      5
255 <210> SEQ ID NO: 7
256 <211> LENGTH: 15
257 <212> TYPE: DNA
258 <213> ORGANISM: Artificial Sequence
260 <220> FEATURE:
261 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
262      illustrative oligonucleotide
264 <400> SEQUENCE: 7
265 gacgatgatg acaag 15
268 <210> SEQ ID NO: 8
269 <211> LENGTH: 5
270 <212> TYPE: PRT
271 <213> ORGANISM: Artificial Sequence
273 <220> FEATURE:

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PATENT APPLICATION: US/10/529,522

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Input Set : A:\Bii00225.app

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274 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
275     enterokinase recognition site
277 <400> SEQUENCE: 8
278 Asp Asp Asp Asp Lys
279   1           5
282 <210> SEQ ID NO: 9
283 <211> LENGTH: 24
284 <212> TYPE: DNA
285 <213> ORGANISM: Artificial Sequence
287 <220> FEATURE:
288 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
289     illustrative oligonucleotide
291 <400> SEQUENCE: 9
292 agctccggag acgatgatga caag                24
295 <210> SEQ ID NO: 10
296 <211> LENGTH: 8
297 <212> TYPE: PRT
298 <213> ORGANISM: Artificial Sequence
300 <220> FEATURE:
301 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
302     linker peptide
304 <400> SEQUENCE: 10
305 Ser Ser Gly Asp Asp Asp Lys
306   1           5
309 <210> SEQ ID NO: 11
310 <211> LENGTH: 1257
311 <212> TYPE: DNA
312 <213> ORGANISM: Artificial Sequence
314 <220> FEATURE:
315 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
316     nucleotide construct sequence
318 <220> FEATURE:
319 <221> NAME/KEY: CDS
320 <222> LOCATION: (1)..(1254)
322 <400> SEQUENCE: 11
323 atg cct ggg aag atg gtc gtg atc ctt gga gcc tca aat ata ctt tgg    48
324 Met Pro Gly Lys Met Val Val Ile Leu Gly Ala Ser Asn Ile Leu Trp
325   1           5           10           15
327 ata atg ttt gca gct tct caa gcc atg agc tac aac ttg ctt gga ttc    96
328 Ile Met Phe Ala Ala Ser Gln Ala Met Ser Tyr Asn Leu Leu Gly Phe
329           20           25           30
331 cta caa aga agc agc aat ttt cag tgt cag aag ctc ctg tgg caa ttg    144
332 Leu Gln Arg Ser Ser Asn Phe Gln Cys Gln Lys Leu Leu Trp Gln Leu
333           35           40           45
335 aat ggg agg ctt gaa tac tgc ctc aag gac agg atg aac ttt gac atc    192
336 Asn Gly Arg Leu Glu Tyr Cys Leu Lys Asp Arg Met Asn Phe Asp Ile
337           50           55           60
339 cct gag gag att aag cag ctg cag cag ttc cag aag gag gac gcc gca    240
340 Pro Glu Glu Ile Lys Gln Leu Gln Gln Phe Gln Lys Glu Asp Ala Ala

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VERIFICATION SUMMARY

PATENT APPLICATION: US/10/529,522

DATE: 08/03/2005

TIME: 14:34:57

Input Set : A:\Bii00225.app

Output Set: N:\CRF4\08032005\J529522.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application Number

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date